



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

SEP 29 2008

REPLY TO THE ATTENTION OF:

**AE-17J**

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

Charles E. Anderson, EHS Team Member  
BASF, The Chemical Company  
1609 Biddle Avenue  
Wyandotte, Michigan 48192

Re: Finding of Violation  
BASF, The Chemical Co.  
Wyandotte, Michigan

Dear Mr. Anderson:

The U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to BASF, The Chemical Company ("BASF" or "you"). We find that you have violated Section 112 of the Clean Air Act, 42 U.S.C. § 7412, at your Wyandotte, Michigan facility.

We have several enforcement options under Section 113(a)(3) of the Clean Air Act, 42 U.S.C. § 7413(a)(3). These options include issuing an administrative compliance order, issuing an administrative penalty order, and bringing a judicial civil or criminal action.

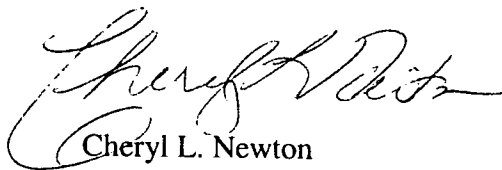
We are offering you an opportunity to confer with us about the violations alleged in the FOV. The conference will give you the opportunity to present information on the specific findings of violation, the efforts you have taken to comply, and the steps you will take to prevent future violations.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Constantinos Loukeris. You may call him at (312) 353-6198 to request a conference.

You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cheryl L. Newton".

Cheryl L. Newton  
Acting Director  
Air and Radiation Division

Enclosure

cc: Jeff Korninski, MDEQ

United States Environmental Protection Agency Region 5

IN THE MATTER OF:	)	
	)	
BASF, The Chemical Company	)	FINDING OF VIOLATION
Wyandotte, Michigan	)	
	)	EPA-5-08-MI-21
	)	
Proceedings Pursuant to	)	
the Clean Air Act,	)	
42 U.S.C. §§ 7401 et seq.	)	

**FINDING OF VIOLATION**

The U.S. Environmental Protection Agency finds BASF, The Chemical Company (BASF or you) in violation of Section 112 of the Clean Air Act (the Act), 42 U.S.C. § 7412, as set forth below, at the Wyandotte, Michigan facility. Specifically, the facility has been operated in violation of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Manufacture of Amino/Phenolic Resins at 40 C.F.R. Part 63, Subpart OOO, the NESHAP for Polyether Polyols Production at 40 C.F.R. Part 63, Subpart PPP, the NESHAP for Equipment Leaks – Control Level 2 Standards at 40 C.F.R. Part 63, Subpart UU, the NESHAP from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater at 40 C.F.R. Part 63, Subpart G, and the NESHAP for Equipment Leaks at 40 C.F.R. Part 63, Subpart H as follows:

**Regulatory Authority**

1. On January 20, 2000, EPA promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Manufacture of Amino/Phenolic Resins at 40 C.F.R. Part 63, Subpart OOO (65 Fed. Reg. 3290).

2. On June 29, 1999, EPA promulgated the NESHAP for Equipment Leaks – Control Level 2 Standards at 40 C.F.R. Part 63, Subpart UU (64 Fed. Reg. 34899).
3. On June 1, 1999, EPA promulgated the NESHAP for Polyether Polyols Production at 40 C.F.R. Part 63, Subpart PPP (64 Fed. Reg. 29439).
4. On April 22, 1994, EPA promulgated the NESHAP from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater at 40 C.F.R. Part 63, Subpart G (59 Fed. Reg. 19468).
5. On April 22, 1994, EPA promulgated the NESHAP for Equipment Leaks at 40 C.F.R. Part 63, Subpart H (59 Fed. Reg. 19568).

#### **Facility Information**

6. BASF owns and operates a chemical plant at its Wyandotte, Michigan facility.
7. At the Wyandotte facility, BASF manufactures amino/phenolic resins and polyether polyols.
8. On March 17-20, 2008, EPA Region 5 conducted an inspection at the Wyandotte facility. The scope of the inspection included the evaluation of BASF's compliance with the NESHAPs for Amino/Phenolic Resins and Polyether Polyols Production and Equipment Leaks. EPA Region 5 staff performed Leak Detection and Repair (LDAR) comparative monitoring during the inspection.
9. The Wyandotte facility has an amino/phenolic process unit which is a "new affected source" under the NESHAP for Amino/Phenolic Resins, as defined under 40 C.F.R. § 63.1400(d).

10. The Wyandotte facility has a polyether polyol process unit which is an “existing affected source” under the NESHAP for Polyether Polyols, as defined under 40 C.F.R. § 63.1420(a)(2).

### **Violations Alleged**

#### **A. Amino/Phenolic Resins Process Unit**

##### **1. Failure to Meet NESHAP Requirements for the Methanol Recovery Distillation Column Process Vent.**

11. The NESHAP for Amino/Phenolic Resins, at 40 C.F.R. § 63.1403, states that an affected source under this subpart shall comply with the HAP emission control provisions of §§ 63.1404 through 63.1410, which include HAP control requirements for continuous process vents at 40 C.F.R. § 63.1405.
12. Under 40 C.F.R. § 63.1405(a), for each continuous process vent located at a new affected source with a Total Resources Effectiveness (TRE) less than or equal to 1.2, the owner or operator shall comply with the HAP control requirements specified under this paragraph. The procedure for calculating an affected source’s TRE index value for purposes of determining applicability of a continuous process vent is provided under § 63.1412(j).
13. Under 40 C.F.R. § 63.1417(e), the owner or operator of a affected source must submit a Notification of Compliance Status (NCS) that includes, among other things, “the results of any emission point applicability determination...design evaluation...”
14. Under 40 C.F.R. § 63.1416(f), the owner or operator of an affected source shall, for each continuous process vent, maintain records of measurements, engineering assessments, and calculations performed according to the procedures of § 63.1412(j) to determine the

TRE index value. Documentation of engineering assessments, described in § 63.1412(k), shall include all data, assumptions, and procedures used for the engineering assessments.

15. Among the emission points of BASF's Amino/Phenolic process unit is a "Methanol Recovery Distillation Column." The distillation column operates continuously with a reflux condenser and a tail condenser which vent to atmosphere.
16. The Methanol Recovery Distillation Column is a "process vent" which constitutes a "continuous process vent," as those terms are defined at 40 C.F.R. § 63.1412(j).
17. At the inspection, EPA asked if BASF had performed a TRE index calculation. BASF indicated it had not identified the methanol recovery distillation column as a continuous process vent, nor calculated a TRE index value for the distillation column.
18. BASF failed to identify the methanol recovery distillation column in the Amino/Phenolic Resins process unit as a continuous process vent and calculate a TRE index value to determine whether the control requirements of 40 C.F.R. § 63.1405 apply. This failure constitutes a violation of the NESHAP for Amino/Phenolic Resins at 40 C.F.R. §§ 63.1412(j), 63.1416(f), 63.1417(e).

## **2. Failure to Meet NESHAP Requirements for Condensers**

19. The NESHAP for Amino/Phenolic Resins, at 40 C.F.R. § 63.1403, states that an affected source under this subpart shall comply with the HAP emission control provisions of §§ 63.1404 through 63.1410, which include HAP control requirements for batch process vents at 40 C.F.R. §§ 63.1406 through 63.1408, are HAP control requirements for batch process vents.

20. The NESHAP, at 40 C.F.R. § 63.1413(e)(1), provides the initial and continuous compliance demonstration requirements for batch process vents that would include either conducting a performance test or a design evaluation on any control devices used to demonstrate compliance with the NESHAP's emission standards.
21. Under 40 C.F.R. § 63.1415(a), the owner or operator of an emission point at an affected source that uses a control device to comply with this NESHAP and has one or more parameter monitoring level requirement specified under the NESHAP shall install and operate monitoring equipment specified under § 63.1415(b). The NESHAP at § 63.1415(b) states that the monitoring equipment specified in paragraphs (b)(1) through (8) of this section shall be installed as specified in paragraph (a) of this section, and the parameters to be monitored are specified in Table 3 of the NESHAP. The NESHAP at § 63.1415(b)(3) states that where a condenser is used, a condenser exit temperature (product side) monitoring device equipped with a continuous recorder is required.
22. Among the Wyandotte Facility's Amino/Phenolic resin batch process vents subject to control requirements under the NESHAP are process vents from Vessels RX-102 and RX-103.
23. Vessels RX-102 and RX-103 each have one condenser; E101B and E100, respectively.
24. The NESHAP, at 40 C.F.R. § 63.1402, indicates that "process condensers" are exempt from the definition of "control device" under the NESHAP. The condensers E101B and E100 do not recover material as an integral part of a unit operation or support a vapor-to-liquid phase change for periods of equipment operation that are at or above the boiling or

bubble point of substance(s) at the liquid surface, and thus are not “process condensers” as that term is defined under § 63.1402.

25. The condensers E101B and E100 constitute “control devices” as that term is defined under 40 C.F.R. § 63.1402 and are subject to parameter monitoring level requirements specified under Table 3 of this NESHAP.

26. BASF failed to perform parametric monitoring and conduct a design evaluation or performance test on condensers operating as control devices in the Amino/Phenolic Resins process unit. This constitutes a violation of the NESHAP for Amino/Phenolic Resins at 40 C.F.R. §§ 63.1413(e)(1) and 63.1415(b).

### **3. Failure to Meet NESHAP Leak Detection and Repair (LDAR) Requirements**

27. The NESHAP for Amino/Phenolic Resins, at 40 C.F.R. § 63.1410, states that the owner or operator of each affected source shall comply with the requirements of 40 C.F.R. Part 63, Subpart UU (national emission standards for equipment leaks (control level 2)) for all equipment, as defined under §63.1402, that contains or contacts 5 weight-percent HAP or greater and operates 300 hours per year or more.

28. The NESHAP for Amino/Phenolic Resins, at 40 C.F.R. § 63.1402, defines “equipment,” for the purposes of the provisions in § 63.1410, as each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems required by §63.1410.



29. The NESHAP for Equipment Leaks – Control Level 2 Standards, at 40 C.F.R.

§ 63.1023(b), states that instrument monitoring, as required under this subpart, shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section.

30. The NESHAP for Equipment Leaks – Control Level 2 Standards, at 40 C.F.R.

§ 63.1023(b)(1), states that the monitoring shall comply with Method 21 of 40 C.F.R. Part 60, Appendix A, except as otherwise provided in this section.

31. EPA performed Method 21 LDAR monitoring on March 19-20, 2008, to assess compliance with applicable LDAR requirements. A monitoring summary table for EPA's LDAR monitoring is as follows:

Component Type	Number of Components Monitored	Number of Leaks Identified	Leak Rate (%)
Valves	106	3	2.8
Connectors	241	7	2.9
Pumps	5	0	0.0
Conservation Vents	2	2	100%

32. BASF provided a Microsoft Access database to EPA that contained LDAR monitoring and leak repair records since 2001. The database was populated with information from the Fugitive Emission Management Software (FEMS) that is maintained by BASF's contractor, EFSI. Upon reviewing the database, EPA found the following information regarding the Amino Resin process unit since 2001:

- One valve leak:

July 28, 2006 with FEMS Tag Identification, 121906; and

- Three connector leaks:

April 10, 2007 with FEMS Tag Identification, 1218021;

April 11, 2006 with FEMS Tag Identification, 1218922; and

July 14, 2005 with FEMS Tag Identification, 1219203

33. EPA's monitoring compared to the historical analysis of BASF's monitoring for the Amino-Resin process unit indicates that, for valves and connectors, the leak rates EPA identified in its inspections are substantially greater than BASF's historical leak rates.
34. Based on comparison of BASF historical leak rates identified for valves and connectors to leak rates identified by EPA during its inspection, BASF has failed to monitor equipment (i.e. valves and connectors) in the Amino/Phenolic Resin process unit in accordance with EPA Reference Method 21. This constitutes a violation of the Amino/Phenolic Resin NESHAP at 40 C.F.R. §§ 63.1410 and 63.1023(b).

#### **4. Failure to Meet NESHAP Requirements to Properly Evaluate HAP Emissions Episodes**

35. The NESHAP, at 40 C.F.R. § 63.1413(e)(1), states that owners or operators opting to comply with the percent reduction standards specified in §63.1406(a)(1)(ii) and (a)(2)(ii) or §63.1407(a)(2)(ii) and (a)(3)(ii) shall select portions of the batch process vent emissions ( i.e., select batch emission episodes or portions of batch emission episodes) to be controlled such that the specified percent reduction is achieved for the batch cycle. Paragraphs (e)(1)(i) and (ii) of this section specify how the performance of a control device or control technology is to be determined. Paragraph (e)(1)(iii) of this section specifies how to demonstrate that the required percent emission reduction is achieved for the batch cycle.

36. In lieu of direct measurement to estimate organic HAP emissions from batch emission episodes, the NESHAP for Amino/Phenolic Resins, at 40 C.F.R. § 63.1414(d)(6), states the owner or operator may request approval to use an engineering assessment to estimate the organic HAP emissions from such episode. The NESHAP states under § 63.1414(d)(6) that the request to use an engineering assessment to estimate organic HAP emissions from a batch emissions episode shall contain sufficient information and data to demonstrate to the Administrator that engineering assessment is an accurate means of estimating organic HAP emissions for that particular batch emissions episode. The request shall be submitted as part of the affected source's "Pre-Compliance Report" (PCR), as provided in § 63.1417(d). The owner or operator may use the engineering assessment requested upon approval.

37. On March 23, 2004, BASF submitted a Pre-Compliance Report (PCR) for the NESHAP for Amino-Phenolic Resin Manufacturing to EPA Region 5 and MDEQ per 40 C.F.R. § 63.1417(d)(1) for a new source. In the PCR, BASF requested the following:

- Utilize an engineering assessment to estimate organic HAP emissions from a batch emission episode as described in 40 C.F.R. § 63.1414(d)(6)(i)(C); and
- Daily verification procedure for monitoring a small control device as specified in 40 C.F.R. § 63.1415(a)(2).

38. Neither EPA nor MDEQ provided an objection to the PCR within a 45 day timeframe, and thus, pursuant 40 C.F.R. § 63.1417(d)(1), the request for using an engineering assessment became "approved" by operation of the regulation.

39. As part of BASF's engineering assessment conducted pursuant to 40 C.F.R.

§ 63.1414(d)(6), BASF performed HAP emission calculations approximately four years ago based on the operations of the three vessels operating at that time: RX-103; RX-100; and TK-141. These calculations estimated HAP emissions from RX-100 and RX-103 using time estimates for the several emission episodes that took place. BASF personnel indicated during the inspection that the time estimates for a few of the emission episodes were underestimated. BASF personnel also indicated that about two years ago, BASF began using RX-102 instead of RX-103, and BASF conducted a slight modification to the processing steps between the vessels. BASF has not updated its engineering assessment emission calculations to reflect the current HAP operations.

40. BASF failed to properly estimate organic HAP emissions from each batch emissions episode. This is a violation of 40 C.F.R. § 63.1414(d)(6).
41. BASF is using an incorrect engineering assessment that is not representative of current operating conditions to demonstrate compliance with the emission percent reduction standards of 40 C.F.R. § 63.1406(a). Therefore, BASF is failing to comply with the NESHAP's compliance demonstration requirements. This is a violation of 40 C.F.R. § 63.1413(e)(1).
42. The NESHAP at 40 C.F.R. § 63.1417(b), states that owners and operators are required to meet the reporting requirements of this subpart (which includes the PCR reporting requirements under 40 C.F.R. § 63.1417(d), unless they can demonstrate that failure to submit information required to be included in a specified report was due to the circumstances described in paragraphs (b)(1) through (3) of this section. The NESHAP at § 63.1417(b) states that examples of circumstances where this paragraph may apply

include information related to newly-added equipment or emission points, changes in the process, changes in equipment required or utilized for compliance with the requirements of this subpart, or changes in methods or equipment for monitoring, recordkeeping, or reporting. The conditions for failure to report under this section to be excused are (1) the information was not known in time for inclusion in the report specified by this subpart; (2) the owner or operator has been diligent in obtaining the information; and (3) the owner or operator submitted a report according to the provisions of paragraph (b)(3)(i) through (iii) of this section as appropriate. Since the PCR reporting requirement provides for supplements to the report under § 63.1417(b), the owner or operator is required to submit new or revised information pertaining to the PCR report no later than 60 days after it is obtained.

43. BASF failed to update and report that there was a process change in 2006 for the Amino/Phenolic Resins process unit which changed the facts upon which the engineering assessment reported in BASF's PCR was based. This is a violation of 40 C.F.R. § 63.1417(b).

**B. Polyether Polyols Process Unit**

**1. Failure to Meet NESHAP Requirements for Performance Testing on the Thermal Incinerator**

44. The NESHAP for Polyether Polyols Production provides at 40 C.F.R. § 63.1424 that an owner or operator of an affected source shall comply with the HAP control requirements of, among other things, §§ 63.1425 through 63.1430 for process vents.
45. Under 40 C.F.R. § 63.1425(b), the owner or operator of an affected source where polyether polyol products are produced with epoxides shall reduce epoxide emissions

from process vents from batch or continuous unit operations in accordance with the requirements specified under this paragraph.

46. Under 40 C.F.R. § 63.1425(c), the owner or operator of affected source where polyether polyols are produced using epoxides, and where nonepoxide organic HAP are used to make or modify the product, shall comply with this paragraph.
47. Under 40 C.F.R. § 63.1425(c), for each process vent from a continuous unit operation that is associated with the use of a nonepoxide organic HAP to make or modify the product, the owner or operator shall determine if the process vent is a Group 1 continuous process vent, as defined in § 63.1423. For the combination of process vents from batch unit operations that are associated with the use of a nonepoxide organic HAP to make or modify the product, the owner or operator shall determine if the combination of process vents is a Group 1 combination of batch process vents, as defined in § 63.1423.
48. The NESHAP for Polyether Polyols Production, at 40 C.F.R. § 63.1425(b), states that the owner or operator of an affected source where polyether polyol products are produced using epoxides shall reduce epoxide emissions from process vents from batch unit operations and continuous unit operations within each polyether polyol manufacturing process unit in accordance with either paragraph (b)(1) or (2) of this section.
49. The NESHAP for Polyether Polyols Production, at 40 C.F.R. § 63.1426(c), states that an owner or operator using a combustion, recovery, or recapture device to comply with emission control requirements specified in §§ 63.1425(b) and (c), shall conduct a performance test using the applicable procedures in paragraphs (c)(1) through (4) of

§ 63.1426(c). The organic HAP or epoxide concentration and percent reduction may be measured as total epoxide, total organic HAP, or as TOC minus methane and ethane according to the procedures specified under this paragraph.

50. The NESHAP for Polyether Polyols Production, at 40 C.F.R § 63.1426(c)(3)(i), specifies the testing conditions that must occur during the performance test.

51. In December 2001, BASF conducted performance testing on the thermal incinerator that controls certain process vents from the Polyether Polyols process unit to comply with 40 C.F.R. § 63.1426(c). This performance test was deficient with respect to the specified testing conditions under § 63.1426(c)(3)(i).

52. BASF failed to conduct proper performance testing on the thermal incinerator in the Polyether Polyols process unit. This is a violation of 40 C.F.R. §§ 63.1426(c) and 63.1426(c)(3)(i).

## **2. Failure to Meet Wastewater Requirements**

53. The NESHAP for Polyether Polyols Production, at 40 C.F.R. § 63.1433(a), states that the owner or operator of each affected source shall comply with the wastewater requirements of the NESHAP for Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (HON) specified at §§ 63.132 through 63.147 for each process wastewater stream originating at an affected source, with the HON leak inspection requirements in §63.148, and with the HON requirements in §63.149 for equipment that is subject to §63.149.

54. The NESHAP for Polyether Polyols Production, at 40 C.F.R. § 63.1423, defines “process wastewater” as wastewater which, during manufacturing or processing, comes into direct

contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. Examples are product tank drawdown or feed tank drawdown; water formed during a chemical reaction or used as a reactant; water used to wash impurities from organic products or reactants; equipment washes between batches in a batch process; water used to cool or quench organic vapor streams through direct contact; and condensed steam from jet ejector systems pulling vacuum on vessels containing organics.

55. The HON, at 40 C.F.R. § 63.132(a), specifies the requirements applicable to process wastewater streams located at existing sources. The owner or operator shall comply with the requirements in paragraphs (a)(1) through (a)(3) of this section.
56. The HON, at 40 C.F.R. § 63.132(a)(1), requires an owner or operator to determine whether each wastewater stream requires control by complying with the requirements specified under § 63.132(a)(1).
57. BASF has reported the identification of eight wastewater Points of Determination (PODs), which are identified below. BASF made a determination under § 63.132(a)(1) that all eight PODs are below 1,000 parts per million by weight, thus being “Group 2” wastewater streams under the HON:

1. tank, TK-155;
2. water scrubber
3. #7 Reactor Cleaning
4. #9 Reactor Cleaning
5. Dirty Water Lift Station
6. Hotwell
7. #8 Reactor Cleaning
8. Clean Water Lift Station



58. There are several wastewater streams that are combined prior to entering the TK-155 tank POD. These streams include steam ejector discharges from the #7, #8, and #9 vacuum systems. The tanks that collect the condensed steam are D151B, D150B, and S405D. The discharges from these tanks are sent to the TK-155 tank that supports the caustics scrubber, an emissions control device for the Polyether Polyols process unit.
59. Based on information obtained through the inspection, BASF has not evaluated the steam ejector discharges as PODs, pursuant to 40 C.F.R. § 63.132(a)(1), because BASF considers the discharges as part of the process unit and not process wastewater subject to requirements under the HON.
60. The steam ejector discharges from the #7, #8, and #9 vacuum systems are “process wastewater” under 40 C.F.R. § 63.1423, subject to POD evaluation pursuant to 40 C.F.R. § 63.132(a)(1).
61. BASF has failed to identify all process wastewater streams and determine the Group status of these streams generated in the Polyether Polyols process unit. This constitutes a violation of 40 C.F.R. §§ 63.1433(a), 63.132(a), and 63.132(a)(1).

### **3. Failure to Meet LDAR Requirements**

62. The NESHAP for Polyether Polyols Production, at 40 C.F.R. § 63.1434(a), states that the owner or operator of each affected source shall comply with the HON equipment leak requirements in 40 C.F.R. Part 63, Subpart H for all equipment in organic HAP service.
63. The NESHAP for Equipment Leaks, at 40 C.F.R. § 63.167(a)(1), states that each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

64. Based on observations during the inspection, BASF failed to equip two open-ended valves or lines with a cap, blind flange, plug, or second valve in the Polyether Polyols process unit. This is a violation of 40 C.F.R. §§ 63.1434(a) and 63.167(a)(1).

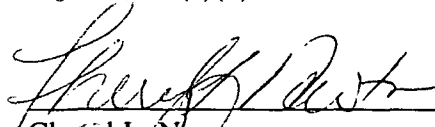
**4. Failure to Meet Annual Primary Product Determination**

65. The NESHAP for Polyether Polyols Production, at 40 C.F.R. § 63.1420(e)(3), states that once per year beginning June 1, 2004, the owner or operator of each flexible operation unit that is not designated as a Polyether Process Manufacturing Process Unit (PMPU) but that has produced a polyether polyol at any time in the preceding 5-year period or since the date that the unit began production of any product, whichever is shorter, shall perform the evaluation described in paragraphs (e)(3)(i) through (iii) of this section.

66. BASF has manufactured polyether polyol in Analytical Chemistry and Chemical Engineering Building during 2006 through 2008, but has not designated the process as a PMPU.

67. BASF failed to perform a primary product determination for the Polyether Polyol manufacturing in the Analytical Chemistry and Chemical Engineering building since January 2006. This is a violation of 40 C.F.R. § 63.1420(e)(3).

Date: 9/29/08

  
Cheryl L. Newton  
Acting Director  
Air and Radiation Division